2. **Remarks**.

a. Claim Rejections. Claims 1 – 5 and 26 – 32 are rejected as anticipated by Lorenze, Jr. et al. Claims 6, 10 – 16, 18, 24 and 25 are rejected as obvious in view of Lorenze, Jr. et al. combined with Baezner et al.

As detailed below, all of the claims are amended to specify that the pen, ink supply and pump are in the hardcopy device. The "on-board" system of the present invention is described in detail throughout the specification. Both Lorenze, Jr. et al. and Baezner are "out-board" pen refilling systems—that is, the pen refilling process and the apparatus that accomplishes it are located away from the printer, and require that the pen be removed from the printer to be refilled.

Lorenze, Jr. et al. discloses two embodiments of a pen refilling device; the first embodiment is in Figs. 1 – 3, and the second embodiment is shown in Fig. 4. With both embodiments, the pen is removed from the printer and taken to a remote filling location to be refilled.

As to the first embodiment:

> "According to a first embodiment of the invention, cartridge 12 is refilled by being manually removed from the printer carriage mounting and taken to a remote refill location wherein ink refill apparatus 40 is located. (Column 3, lines 24 – 24.)

As to the second embodiment:

> "Fig. 4 shows a second embodiment of the invention. Fig. 4 shows a side end view of cartridge 12 after it has been removed from carriage 16 and carried to the remote refill location wherein ink refill apparatus 82 is located. (Column 4, lines 38 – 41.)

Baezner et al. disclose a refillling apparatus that relies upon a housing structure 12 that is completely separate from a printer. The housing structure is an independent device dedicated solely to refillling pens that have been removed from a printer and taken to the refilling apparatus to be loaded.

Claim 1 is amended to be directed to an "on-board" system. The pen is mounted for reciprocal movement on a shaft in a chassis; the supply of ink is in the chassis; the pump is in the chassis, and the pump is movable along the shaft to align with the ink supply to perform operations.

Claim 26 now specifies that the pen is mounted in a hardcopy device, and that the ink supply and the pump are also in the hardcopy device.

As noted, Lorenze Jr., et al.'s out-board systems disclose none of these structures. Claims 1 and 26 and the claims that depend from them are thus allowable.

Claim 6 is a method claim that is amended so that the method includes mounting the pen for reciprocal movement on a shaft in a hardcopy device, mounting a supply of ink in the hardcopy device, moving the pen into alignment with the ink supply and connecting the pen to the supply, connecting a pump to the pen and operating the pump. Neither Lorenze, Jr. et al. nor Baezner describe use of their refilling stations in a hardcopy device, and they do not disclose any structural mechanisms that would make such a method operable. As such, even if these references were combined there is no suggestion or teaching that would lead one to utilize the claimed method. Claim 6 is allowable over the references of record.

For the reasons discussed above, the independent claims are allowable over the prior art cited by the Examiner and are allowable over the art. The dependent claims are allowable based on dependency from allowable base claims and for the limitations they add to the base claims. Allowance of the application is respectfully requested.

Respectfully submitted,

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